ASARCO

AS0302 November30, 2001

Bonnie Lavelle
Remedial Project Manager (8EPR-SR)
VB/I-70 Superfund Site, OU2
U.S. Environmental Protection Agency, Region 8
999 18th Street, Suite 300
Denver, Colorado, 80202-2466

Re: Globe Plant Site Air Monitoring
September 4, 2001 to September 28, 2001

Dear Bonnie:

Attached, please find a summary of the preliminary results of the September 2001 (September 4, 2001 to September 28, 2001) particulate and metal data for the Asarco Globe air quality network for (arsenic, cadmium, lead, and total suspended particulates) for September 4, 2001 to September 28, 2001 for the Globe Plant high volume samplers known as:

- Flood Plain (aka: FLP or BP-NuTech),
- FL-Fork Lift City,
- Old Office,
- Meteorological (aka: BEN-Gordon's Bookstore or Globe meteorological station),
- MUS (aka Asarco community center).
- Tavern (TAV) (PM10 sampler)

An arsenic concentration of 0.066 ug/m3 was apparently observed at the Colorado Department of Transportation's (CDOT's) Air Monitoring Station No. 1 at Brighton Boulevard for the period beginning at midnight on September 7, 2001 and ending on midnight on September 8, 2001 (see Spectrum letter to CDOT dated October 19, 2001).

ASARCO Incorporated, 495 East 51st Avenue, Denver, Colorado 80216-2098
Phone (303) 296-5900 • Fax. (303) 296-0508

Bonnie Lavelle
November 30, 2001

Two of the Globe Plant High Volume air monitoring stations (i.e., Flood Plain and MUS) were operated on September 7, 2001 (i.e., midnight on September 6, 2001 until midnight on September 7, 2001). On a preliminary basis, the 24-hour arsenic concentrations at the Globe Plant Flood Plain and MUS stations on September 7, 2001, corrected to standard conditions of 25°C and 760 mm Hg were below detection at <0.013 ug/m3 and <0.015 ug/m3, respectively, both of which are well below the value of 0.066 ug.m3 observed at CDOT's Air Monitoring Station No. 1 at Brighton Boulevard on September 8, 2001.

Although there is no formal standard for arsenic in Colorado, CDOT apparently established an action level of 0.01 ug/m3 as part of their voluntary monitoring program based on historical data for the area that indicates that arsenic levels have typically been below 0.01 ug/m3 (see Spectrum letter to CDOT dated October 19, 2001). The preliminary 24-hour arsenic detection limits at the Globe Plant high volume samplers are somewhat above CDOT's 24-hour action level of 0.01 ug/m3 (see attachments).

For comparison, with CDOT's adopted project action level of 0.01ug/m3, Arizona and Oklahoma have set 24-hour guideline levels of 0.016 ug/m3 and 0.020 ug/m3 for arsenic although they do not have standards for arsenic. The preliminary arsenic detection limits (and concentrations) at the Globe Plant for September 4, 2001 to September 28, 2001 corrected to standard conditions as recommended by CDPHE are below these guidelines.

Please call me if you have any questions regarding this letter or the attachments.

Sincerely,

Robert D. Litle
Asarco Site Manager

Attachments

cc: Bill Brattin, Syracuse Research
Barbara O'Grady, CDPHE
Linda Larson, Sandler Ahern & McConaughy
Dave Folkes, EnviroGroup

TRC ENVIRONMENTAL CORPORATION
DENVER RESOURCE CENTER
7761 Shaffer Parkway – Suite 100
Littleton, Colorado 80127
303.792.5555 ; 303.792.0122 FAX

TRC
Customer-Focused Solutions

Facsimile

To:	**Poppy – ASARCO Globe**	**From:**	**Brian D. Sandstrom - TRC**
Fax:	**303-296-5900**	**Pages:**	**4**
Phone:	**303-296-0508**	**Date:**	**11/19/01**
Re:	**September 2001 Preliminary Data Results**	**CC:**	**Kurt Parker**

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This fax provides summary of the preliminary September 2001 particulate and metal data for the ASARCO Globe air quality network. *Table 1* provides a summary of the monthly results. *Table 2 through Table 7* provides the 24-hour sample results for the air monitoring sites.

Table 1
Preliminary Monthly Arithmetic Average Results

Month	Site	PM_{10} (µg/m³)	TSP (µg/m³)	As (µg/m³)	Cd (µg/m³)	Pb (µg/m³)
September	Flood Plain (FLP)	N/A	111.5	< 0.011	< 0.005	0.13
	Fork Lift (FL)	N/A	133.1	< 0.014	< 0.007	0.34
	Old Office (VI)	N/A	103.3	< 0.015	< 0.008	0.12
	Meteorological (Met)	N/A	106.2	< 0.015	< 0.008	0.10
	MUS	N/A	93.6	< 0.009	< 0.005	0.11
	Tavern PM_{10} (TAV)	47.1	N/A	N/A	N/A	N/A

Table 2
Flood Plain Site
PM and Metals Preliminary Results

Date Sampled	As Std. (µg/m³)	Cd Std. (µg/m³)	Pb Std. (µg/m³)	TSP Std. (µg/m³)
09/04/01	< 0.015	< 0.008	< 0.08	140.4
09/07/01	< 0.013	< 0.007	0.57	87.0
09/10/01	< 0.014	< 0.008	< 0.07	99.3
09/16/01	< 0.014	< 0.007	0.18	69.8
09/22/01	< 0.014	< 0.007	< 0.07	88.1
09/28/01	< 0.014	< 0.008	< 0.07	199.7

Table 3
Fork Lift Site
PM and Metals Preliminary Results

Date Sampled	As Std. (µg/m³)	Cd Std. (µg/m³)	Pb Std. (µg/m³)	TSP Std. (µg/m³)
09/04/01	< 0.013	< 0.007	0.26	161.2
09/10/01	< 0.013	< 0.007	0.28	116.8
09/16/01	< 0.013	< 0.007	0.41	72.4
09/22/01	< 0.013	< 0.007	0.43	107.6
09/28/01	0.016	< 0.007	0.26	235.5

Table 4
Old Office Site (VI)
PM and Metals Preliminary Results

Date Sampled	As Std. ($\mu g/m^3$)	Cd Std. ($\mu g/m^3$)	Pb Std. ($\mu g/m^3$)	TSP Std. ($\mu g/m^3$)
09/04/01	< 0.015	< 0.008	< 0.08	116.1
09/10/01	< 0.016	< 0.008	< 0.08	87.7
09/16/01	< 0.015	< 0.008	0.19	54.7
09/22/01	< 0.015	< 0.008	< 0.08	77.8
09/28/01	< 0.015	< 0.008	0.17	180.0

Table 5
Meteorological Site (Met)
PM and Metals Preliminary Results

Date Sampled	As Std. ($\mu g/m^3$)	Cd Std. ($\mu g/m^3$)	Pb Std. ($\mu g/m^3$)	TSP Std. ($\mu g/m^3$)
09/04/01	< 0.015	< 0.008	0.09	110.5
09/10/01	< 0.015	< 0.008	0.16	90.3
09/16/01	< 0.015	< 0.008	< 0.08	57.3
09/22/01	< 0.015	< 0.008	< 0.08	83.8
09/28/01	< 0.015	< 0.008	< 0.08	189.3

Table 6
MUS Site (MUS)
PM and Metals Preliminar y Results

Date Sampled	As Std. ($\mu g/m^3$)	Cd Std. ($\mu g/m^3$)	Pb Std. ($\mu g/m^3$)	TSP Std. ($\mu g/m^3$)
09/04/01	< 0.015	< 0.008	< 0.08	120.8
09/07/01	< 0.015	< 0.008	0.38	81.3
09/10/01	< 0.016	< 0.008	< 0.08	79.4

Table 7
Tavern Site (TAV)
Preliminary PM_{10} Concentration ($\mu g/m^3$)

Date Sampled	PM_{10} Actual ($\mu g/m^3$)	PM_{10} Standard ($\mu g/m^3$)
09/04/01	48.8	53.1
09/10/01	35.7	38.9
09/16/01	24.7	26.9
09/22/01	34.8	37.9
09/28/01	72.3	78.7

If you need additional information or have any question please call me at 303-395-4009

1900 Wazee St., Suite 311
Denver, Colorado 80202-1259

(303) 292-1850 Fax (303) 292-2886

FAX TRANSMITTAL

Date: 10/22/01 Total Number of Pages: 3

To: Jim Paulmeno (720-529-4819)
Fred Holderness (303-298-5016)
Steve Sherman
Shelia Burns (303-782-5493
Dale Merrill (303-233-8782)

From: Paul Casey

Phone Number: **(303) 292-1850**

Message:

Letter attached.

Please call with any questions.
If there are any problems with this transmission, please call (303) 292-1850.

Signed:

Spectrum SERVICES

October 19, 2001

Colorado Department of Transportation
4201 E. Arkansas Ave., 4th Floor – Central
Denver, Colorado 80222-3400

Attention: Mr. Jim Paulmeno

Re.: CDOT I-70 Brighton Boulevard Phase IV
Project No.: CDOT IM 0704-191 (I-70)
Air Monitoring Program Interim Report for September 7, 2001

Dear Mr. Paulmeno

Spectrum Services, Inc. (Spectrum) provides notification to CDOT and Centric Jones that on September 7th, 2001 elevated concentrations of arsenic were detected Air Monitoring Station No. 1, which is the Brighton Boulevard location. Specifically, the total suspended particulate sampler designated as 1B recorded the elevated arsenic levels. The arsenic concentration measured for the 24-hour period beginning at mid-night September 7, 2001 and ending at mid-night September 8, 2001 was 0.066 micro grams per cubic meter (ug/m^3). Although there is no formal standard for arsenic, CDOT established an action level of 0.01 ug/m^3 as part of this voluntary monitoring program. This action level is based on historical data for the area that indicates that arsenic levels have typically been below 0.01 ug/m^3. By way of comparison, neighboring states such as Arizona and Oklahoma which do not have arsenic standards either, have established guideline levels for a 24-hour average of 0.016 and 0.02 ug/m^3, respectively. The arsenic levels measured on September 7, 2001 are approximately seven times the action level we have established and the guideline levels of neighboring states.

Additional monitoring parameters have also been reviewed including lead and TSP data, as well as meteorological data. Although lead levels measured on the same filter were well below the lead standard, they were on the high end of the lead levels that we have previously observed at the site. The lead standard is 1.5 ug/m^3 for a monthly average and the lead levels measured on the 7th were 0.099 ug/m^3 for a 24-hour average. It is interesting to note that the 24-hour TSP level measured from the sample of concern was 184.7 ug/m^3, which is not particularly high compared with other values that have been recorded at the site. Review of the meteorological data for September 7, 2001 indicates that the winds were generally light to moderate at the time the elevated arsenic levels were measured (4.5 to 13 mph) and blowing from the north across the site.

Based on discussions with the analytical laboratory, the requisite quality assurance data indicates that the measured concentration is valid.

1900 Wazee Street, Suite 311
Denver, Colorado 80202
303.292.1440 Fax 303.292.2886

Spectrum SERVICES

Observations of site conditions indicate that a significant quantity of soils has been exposed and were stockpiled immediately upwind of the site. Some of these soils have been removed in the time since the elevated arsenic level was detected. It should be noted that all of these stockpiles have been sampled for RCRA metals and TRPH and have been found not to contain arsenic.

Corrective dust suppression measures, which are being considered, include the following:

1. The further removal of petroleum contaminated and uncontaminated stockpiles from the work site to minimize the volume of soil, which can potentially be a source for fugitive dust.

2. The increased daily application of water to active stockpile locations.

3. The introduction of surfactant type dust suppression additives to stockpiles that are intended to remain at allocations for longer than 7 days.

Please contact me at 303-292-1850 with any questions you may have regarding the attached information. With my signature below, Spectrum certifies that the information attached is true and complete to the best of its knowledge.

Sincerely,
Spectrum Services, Inc.

Paul L. Casey, P.E.
Project HSO/Principal Engineer

Fred Holderness, CDOT R-6
Steve Sherman, CDOT R-6
Dale Merrill, Centric Jones
Sheila Burns, CDPHE – Air Pollution Control Division

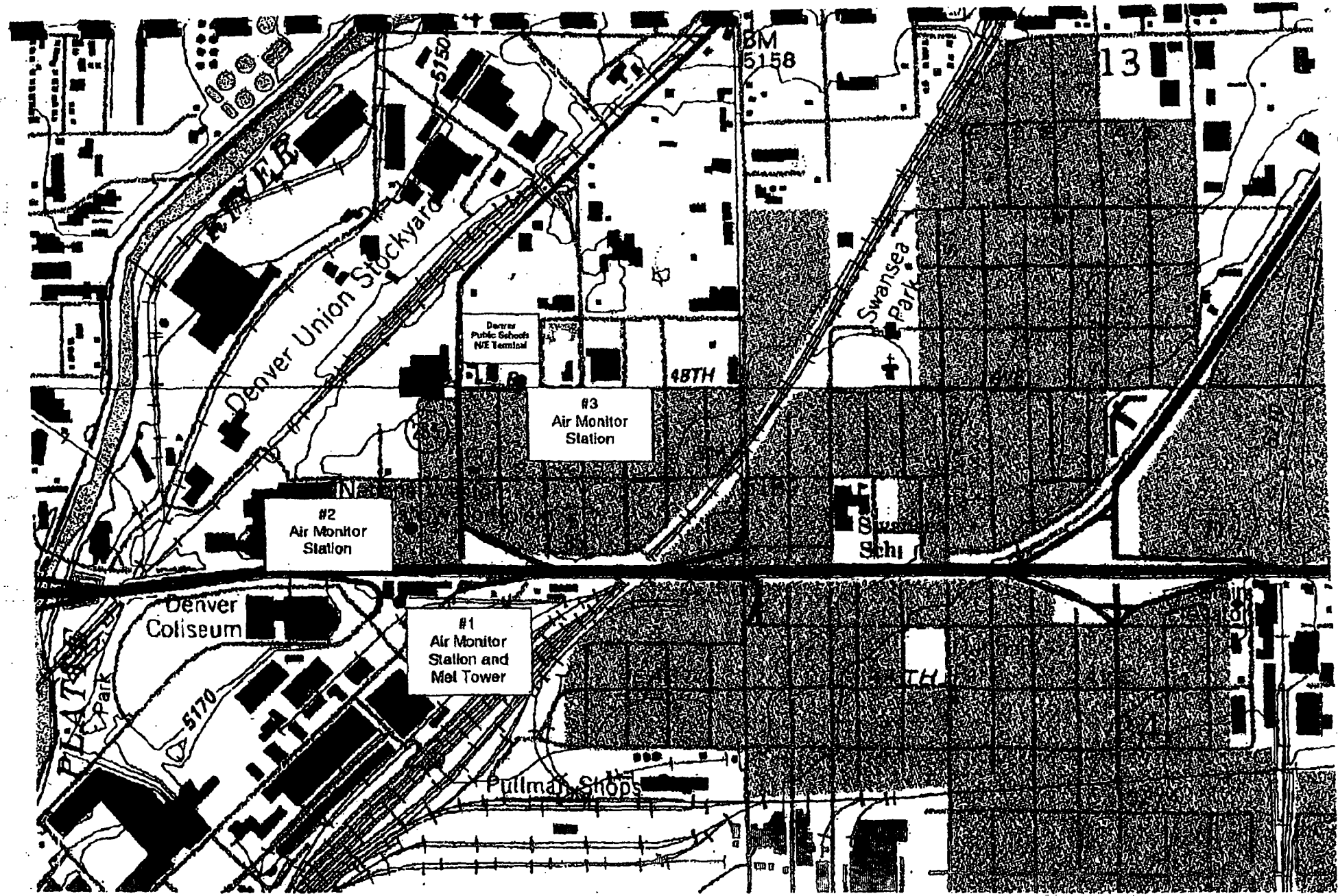

Figure 1 Project Area
Air Quality Monitoring Program I-70 & Brighton Blvd. Interchange Modifications

3.0 MONITORING SITE DESCRIPTION

3.1 SITE 1

Site 1 is located near the corner of Brighton Boulevard and 44th street, see Figure 1. The Universal Transverse Mercator (UTM) coordinates, in meters, for the site are 502,730 E and 4,403,230 N. The elevation of the site is approximately 5,170 feet above mean sea level.

TSP, PM_{10}, arsenic, and lead are measured at Site 1. Additionally, wind speed, wind direction, temperature, and atmospheric stability, in the form of sigma-theta, are also recorded. The particulate and arsenic and lead samples are collected at a height of approximately three meters above ground level. Wind speed, wind direction, and sigma-theta are recorded at a height of ten meters above ground and temperature is recorded at two meters above ground level.

This site is an urban site and is surrounded by a variety of mobile and stationary sources. It is located within close proximity of heavy traffic areas.

3.2 SITE 2

Site 2 is located off of East 47th Avenue in the National Western Stock Show parking lot off Baldwin Court, see Figure 1. The UTM coordinates for the site are 503,750 E and 4,403,400 N. The elevation of the site is approximately 5,170 feet above mean sea level.

TSP, arsenic, and lead are measured at Site 2. The TSP and arsenic and lead samples are being collected at a height of approximately three meters above ground level.

This site is an urban site and is surrounded by a variety of mobile and stationary sources. It is located within close proximity of heavy traffic areas.

3.3 SITE 3

Site 3 is located at the corner of High Street and East 48th Avenue in the Denver Public Schools NE Bus Terminal Site parking lot, see Figure 1. The UTM coordinates for the site are 502,980 E and 4,403,870 N. The elevation of the site is approximately 5,170 feet above mean sea level.

TSP, arsenic, and lead are measured at Site 3. The TSP and arsenic and lead samples are collected at a height of approximately three meters above ground level.

This site is an urban site and is surrounded by a variety of mobile and stationary sources. It is located within close proximity of heavy traffic areas.